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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,579	09/26/2001	Linden Minnick	42390P12266	3536

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EXAMINER

PYZOCHA, MICHAEL J

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,579

Applicant(s)

MINNICK, LINDEN

Examiner

Michael Pyzocha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-19, 21-30, 32-41, 43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-19, 21-30, 32-41, 43 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-8, 10-19, 21-30, 32-41, and 43-44 are pending.
2. Amendment filed 07/18/2005 has been received and considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 8, 12-17, 19, 23-28, 30, 34-39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Godwin et al (US 6505192), further in view of Tuck, III et al (US 6763394) and further in view of Apparna et al ("Monitoring Ethernet Network activity with NDIS drivers").

As per claims 1, 12, 23 and 34, Godwin et al discloses receiving a network packet having a corresponding security association (SA); determining for the packet a key value corresponding to the SA; if the packet is an ingress packet hashing the key value to determine a location of an entry in an

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ingress lookup table and if the packet is an egress packet hashing the key value to determine a location of an entry in an egress lookup table the entry in the ingress lookup table and the entry in the egress lookup table containing information corresponding to the SA; retrieving from the entry an index to a location of the SA in memory; and retrieving the SA from memory based on the index (see column 6 line 47 through column 7 line 10 and lines 25-44).

Godwin fails to disclose determining if the packet is an ingress packet or an egress packet and the two lookup tables being separate.

However, Tuck teaches such limitations (see column 2 lines 29-37, column 5 lines 28-38 and claim 19).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the lookup tables of Tuck in the system of Godwin.

Motivation to do so would have been that using a single table would waste a lot of table space (see column 5 lines 28-38).

The modified Godwin and Tuck system fails to disclose the method being performed at a device driver.

However, Apparna teaches the use of a device driver (see page 2).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to perform the method of Godwin and Tuck at the device driver of Apparna.

Motivation to do so would have been to be able to communicate with the protocol drivers and the operating system (see page 2).

As per claims 2, 13, 24 and 35, the modified Godwin, Tuck and Apparna system discloses receiving a network packet comprises the device driver being passed an egress packet from an electronic system operating system (see Godwin column 7 lines 25-44 and Apparna page 2).

As per claims 3, 14, 25 and 36, the modified Godwin, Tuck and Apparna system discloses receiving a network packet comprises the device driver being passed an ingress packet from a network interface device (see Godwin column 6 line 47 through column 7 line 10 and Apparna page 2).

As per claims 4, 15, 26 and 37, the modified Godwin, Tuck and Apparna system discloses the key value is a handle created for the SA for an egress packet (see Godwin column 7 lines 25-44 wherein the name is the handle).

As per claims 5, 16, 27 and 38, the modified Godwin, Tuck and Apparna system discloses the key value is a security

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parameter index (SPI) extracted from the packet for an ingress packet (see Godwin column 6 lines 47-67).

As per claims 6, 17, 28 and 39, the modified Godwin, Tuck and Apparna system discloses the lookup table entry comprises the key value and the index (see Godwin column 6 line 47-67).

As per claims 8, 19, 30 and 41, the modified Godwin, Tuck and Apparna system discloses the location in memory of an SA corresponding to egress traffic being in a first table, and the location in memory of an SA corresponding to ingress traffic being in a second table and the tables being separate (see Godwin column 4 lines 18-67 and Tuck column 5 lines 28-38).

5. Claims 7, 18, 29 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Godwin, Tuck and Apparna system as applied to claims 1, 12, 23, and 34 above, and further in view of Kobayashi et al (JP 03164866).

As per claims 7, 18, 29 and 40, the modified Godwin, Tuck and Apparna system fails to disclose the lookup table entry further comprises a counter to track collisions for the entry.

However, Kobayashi et al teaches such a counter to track collisions (see CONSTITUTION).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Kobayashi et al's method of tracking collisions using a counter in the security

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association method of the modified Godwin, Tuck and Apparna system.

Motivation to do so would have been to allow an output of a new address when collisions occur (see CONSTITUTION).

6. Claims 10-11, 21-22, 32-33 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Godwin, Tuck and Apparna system as applied to claims 1, 12, 23, and 34 above, and further in view of Otterness et al (US 6460122) and further in view of Ross et al (US 6711562).

As per claims 10, 21, 32 and 43, the modified Godwin, Tuck and Apparna system fails to disclose supporting a number of network traffic streams, wherein the lookup table has 2^N entries where N is an integer, 2^N being the lowest binary number greater than five times the number of network traffic streams supported.

However, Otterness et al teaches a lookup table of size 2^N (see column 17 Tables III and IV) and Ross et al teaches the size of the table being five times the number of raw data (see column 15 lines 1-22).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the table size of Otterness et al in the modified Godwin, Tuck and Apparna system and to use the more specific table size of Ross et al in the modified Godwin, Tuck, Apparna and Otterness et al system.

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Motivation to do so would have been that it is advantageous to have a table size of 2^N (see Table III) and that table sizes are typically 20% (or five times) the size of the raw data (see Ross et al column 15 lines 1-22).

As per claims 11, 22, 33 and 44, the modified Godwin, Tuck, Apparna, Otterness et al, and Ross et al system discloses the key value is determined by using a bit-wise AND hash function with a mask of value 2^N-1 , where N is an integer, wherein the hash table contains 2^N entries (see Otterness et al column 17 Table III and IV).

Response to Arguments

7. Applicant's arguments with respect to claims 1-8, 10-19, 21-30, 32-41, and 43-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

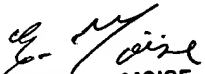
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:00am - 4:30pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJP


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER